approved self-draining metal racks and shall not be nested.

- (u) Dump tanks, drawoff tanks, and churns shall be cleaned approximately every 4 hours. All such equipment and all other liquid handling equipment, unless cleaned by acceptable cleaned in-place methods, shall be dismantled and cleaned after each shift. Pasteurization equipment shall be cleaned at the end of each day's use or more often if necessary. All such equipment shall be clean and shall be sanitized prior to placing in use.
- (v) Strainers, clarifiers, filtering and other devices used for removal of shell particles and other foreign material shall be cleaned and sanitized each time it is necessary to change such equipment, but at least once each 4 hours of operation.
- (w) Breaking room processing equipment shall not be stored on the floor.
- (x) Metal containers and lids for other than dried products shall be thoroughly washed, rinsed, sanitized, and drained immediately prior to filling. The foregoing sequence shall not be required if equally effective measures approved by the National Supervisor in writing are followed to assure clean and sanitary containers at the time of filling.
- (y) Liquid egg holding vats and containers (including tank trucks) used for transporting liquid eggs shall be cleaned after each use. Such equipment shall be clean and sanitized immediately prior to placing in use.
- (z) Tables, shell conveyors, and containers for inedible egg product shall be cleaned at the end of each shift.
- (aa) Mechanical egg breaking machines shall be operated at a rate to maintain complete control and accurately inspect and segregate each egg to insure the removal of all loss and inedible eggs. The machine shall be operated in a sanitary manner.
- (1) When an inedible egg is encountered on mechanical egg breaking equipment, the inedible egg and contaminated liquid shall be removed. The machine shall be cleaned and sanitized, or contaminated parts replaced with clean ones in the manner prescribed by the Administrator for the type of ined-

ible egg encountered and the kind of egg breaking machine.

- (2) Systems for pumping egg liquid directly from egg breaking machines shall be of approved sanitary design and construction, and designed to minimize the entrance of shells into the system and be disconnected when inedible eggs are encountered. The pipelines of the pumping system shall be cleaned or flushed as often as needed to maintain them in a sanitary condition, and they shall be cleaned and sanitized at the end of each shift. Other pumping system equipment shall be cleaned and sanitized approximately every 4 hours or as often as needed to maintain it in a sanitary condition. All liquid egg pumped directly from egg breaking machines shall be reexamined, except as otherwise prescribed and approved by the Administrator.
- (3) Mechanical egg breaking equipment shall be clean and sanitized prior to use, and during operations the machines shall be cleaned and sanitized approximately every 4 hours or more often if needed to maintain them in a sanitary condition. This equipment shall be cleaned at the end of each shift.

[36 FR 9814, May 28, 1971, as amended at 37 FR 6659, Apr. 1, 1972; 40 FR 20059, May 8, 1975; 40 FR 20941, May 14, 1975. Redesignated at 42 FR 32514, June 27, 1977, and further redesignated at 46 FR 63203, Dec. 31, 1981]

# §590.530 Liquid egg cooling.

- (a) Liquid egg storage rooms, including surface coolers and holding tank rooms, shall be kept clean and free from objectionable odors and condensation. Surface coolers and liquid holding vats containing product shall be kept covered while in use. Liquid cooling units shall be of approved construction and have sufficient capacity to cool all liquid eggs to the temperature requirements specified in this section.
- (b) Compliance with temperature requirements applying to liquid eggs shall be considered as satisfactory only if the entire mass of the liquid meets the requirements.
- (c) The cooling and temperature requirements for liquid egg products shall be as specified in Table I of this section.

### §590.532

TABLE I-MINIMUM COOLING AND TEMPERATURE REQUIREMENTS FOR LIQUID EGG PRODUCTS [Unpasterurized product temperature within 2 hours from time of breaking]

Product	Liquid (other than salt prod- uct) to be held 8 hours or less	Liquid (other than salt prod- uct) to be held in excess of 8 hours	Liquid salt product	Temperature within 2 hours after pasteur- ization	Temperature within 3 hours after stabilization
Whites (not to be stabilized)	55 °F. or lower 70 °F. or lower 45 °F. or lower	45 °F. or lower 55 °F. or lower 40 °F. or lower		45 °F. or lower 55 °F. or lower If to be held 8 hours or less 45 °F. or lower. If to be held in excess of 8 hours, 40 °F. or lower.	(1) If to be held 8 hours or less, 45 °F. or lower. If to be held in excess of 8 hours, 40 °F. or lower.
Liquid egg product with 10 percent or more salt added.			If to be held 30 hours or less, 65 °F. or lower. If to be held in excess of 30 hours, 45 °F. or lower.	65 °F. or lower <sup>2</sup> .	

<sup>&</sup>lt;sup>1</sup> Stabilized liquid whites shall be dried as soon as possible after removal of glucose. The storage of stabilized liquid whites

shall be limited to that necessary to provide a continuous operation.

2The cooling process shall be continued to assure that any salt product to be held in excess of 24 hours is cooled and maintained at 45 °F. or lower.

- (d) Upon written request and under such conditions as may be prescribed by the National Supervisor, liquid cooling and holding temperatures not otherwise provided for in this section may be approved.
- (e) Agitators shall be operated in such a manner as will minimize foam-
- (f) When ice is used as an emergency refrigerant by being placed directly into the egg meat, the source of the ice must be certified by the local or State board of health. Such liquid shall be dried. All ice shall be handled in a sanitary manner.
- (g) Previously frozen egg or egg product cannot be added to liquid product for the purpose of complying with liquid cooling requirements.

[36 FR 9814, May 28, 1971. Redesignated at 42 FR 32514, June 27, 1977 and further redesignated at 46 FR 63203, Dec. 31, 1981, as amended at 47 FR 745, Jan. 7, 1982; 60 FR 49170, Sept. 21. 1995]

#### §590.532 Liquid egg holding.

(a) Tanks and vats used for holding liquid eggs shall be of approved construction, fitted with covers, and located in rooms maintained in a sanitary condition. Notwithstanding the foregoing, tanks designed for installa-

- tion partially outside of a room or building are acceptable, providing all openings into the tanks terminate in the processing room.
- (b) Liquid egg holding tanks or vats shall be equipped with suitable thermometers and agitators.
- (c) Inlets to holding tanks or vats shall be such as to prevent excessive foaming.
- (d) Gaskets, if used, shall be of a sanitary type.

[36 FR 9814, May 28, 1971. Redesignated at 42 FR 32514, June 27, 1977, as amended at 45 FR 23641, Apr. 8, 1980. Redesignated at 46 FR 63203, Dec. 31, 1981]

### § 590.534 Freezing facilities.

- (a) Freezing rooms, either on or off the premises, shall be capable of freezing all liquid egg products in accordance with the freezing requirements as set forth in §590.536. Use of off-premise freezing facilities is permitted only when prior approval in writing from the National Supervisor is on file.
- (b) Adequate air circulation shall be provided in all freezing rooms.

# § 590.536 Freezing operations.

(a) Freezing rooms shall be kept clean and free from objectionable odors.